Curriculum Vitae

Meduri Chandra Sekhar
M.Tech (Information Systems(Communications+DSP))
Department Of Electrical Engineering
IIT Kanpur.
cs_meduri2002@yahoo.com

OBJECTIVE: Seeking a position that combines creativity and analytical thinking in the fields of Signal Processing and/or Communications, acquire new skills and contribute significantly to the organization.

EDUCATION

Examination	Year	CPI / Percentage	Institution
M.Tech	2006	08.25	**I**ndian **I**nstitute of **T**echnology **K**anpur, India
B.Tech(E.C.E)	2003	77.52	**J**awaharlal **N**ehru **T**echnological **U**niversity, Andhra Pradesh
Intermediate	1999	89.90	Board of Intermediate Education, Andhra Pradesh
S.S.C	1997	81.16	Board of Secondary Education, Andhra Pradesh

RELEVANT COURSEWORK

- **Graduate courses**

Representation and Analysis of Random Signals, Introduction to Signal Analysis, Image Processing, Wavelets for Image and Signal processing, Mathematical Structures for Signals and Systems, Wireless Communications, Smart Antennas for Mobile Communications and Communication Theory.

- **Undergraduate courses**

Signals and Systems, Analog and Digital Communications, Probability Theory, Digital Signal Processing, Microprocessors and VLSI Technology.

TECHNICAL SKILLS

- Software : C and Data Structures, C++, MATLAB, PSpice, Assembly language (8085, ADSP 21XX, TMS320c5x,c6711), MS Office
- Operating systems : Windows XP/Me/98 , LINUX

ACADEMIC HONORS

- Ranked second in Electronics and Communication Engineering at J.N.T.U
- Ranked 185 in GATE-2004.

PROFESSIONAL ACTIVITIES

- Student member of the ISTE.
- Active member of EEA (Electrical Engineers Association, IIT Kanpur).

PUBLICATIONS

- Meduri Chandra Sekhar, Sumana Gupta, " Threshold Free Technique to Detect the Blotches in Old Film Sequences ", 13th National Conference on Communications, pages 53-57, 2007.
- Anirudha Mandsorwale, Meduri Chandra Sekhar, Sumana Gupta, " A Novel Approach for Detection and Removal of Line scratches and Blotches", International Conference on Image Processing, 2007, Texas. (Submitted)

OTHER

- **Workshop:** Attended workshop on "**Design of DSP- Based Workstation**" during 18-23, July 2005 in IIT Kanpur, under the guidance of Dr.G.C.Ray
- Teaching assistant for "Communication Systems" and "Digital Signal Processing Lab"
- Member of the winning cricket team in 10^{th} and intermediate.

PROJECTS

M.Tech Thesis : Restoration of Old Color Film Sequences
Thesis Supervisor: Dr. Sumana Gupta
The video archives of the world contain many important historic, artistic and cultural records that are stored in a fragile state, on a volatile medium, and in need of conservation and restoration. Automated tools for video restoration will be crucial in preserving our cultural heritage, since manual image restoration is a tedious and time-consuming process. So much research is carried out in the area of black and white video, as color movies are archived from the past 20 years there is need for color sequence restoration also. In my thesis I am doing Color image sequence restoration using C programming language.

M.Tech Term Projects

- **Wireless Communications**

Parity bit selected spreading sequences: A Block Coding Approach to Spread Spectrum
In this project we implemented a wireless communication system which uses parity bits to select a spreading sequence from a pre-defined set instead of using a single spreading sequence. At the receiver, the spreading code employed is determined from the outputs of the filters that are matched to each spreading sequence. The information bits are then determined from the output of the specific matched filter. The project was done using MATLAB.

- **Image processing**

Multi resolution Texture Synthesis: Textures are important for a wide variety of applications in computer graphics and image processing. The goal of this project is to provide practical tool for efficiently synthesizing a broad range of textures. Inspired by Markov Random Field methods, our algorithm is general, efficient and easy: taking an example texture patch as input , using Tree Structured vector Quantization a wide variety of textures can be generated without any knowledge of their physical formation process. The project was done in MATLAB

B.Tech Project: Secure Communications using DSP techniques
Our project is concerned with transceiver, which is used for normal communications between the stations. In the normal communication any receiver can capture the transmitted signal, because the transmission is only at one frequency. For providing secrecy in communications, we have implemented ECCM module with DSP starter kit to increase the frequency hoping of 8 hops per second to 40 hops per second with synchronized communication between the stations. This project was carried out at Electronics Corporation of India Limited (E.C.I.L) Hyderabad.

PERSONAL

Date of Birth:	06-07-1982
Sex:	Male
Marital Status:	Single
Present Address:	G-220, Hall-8, IIT Kanpur, UP-208016, INDIA.
Permanent Address:	S/o Seshagiri Rao, Pallamalli Village, Tellabadu (s.o), Prakasam district, Andhra Pradesh, India.
Phone Number:	+91 985 088 8269(mobile), +91 859 225 8338(home)

DECLARATION

I hereby declare that the information given above is correct to the best of my knowledge and belief.

Date:23-01-2006
Place: Pune **Meduri Chandra Sekhar**